NAEP Problem:

Think carefully about the following question. Write a complete answer. You may use drawings, words, and numbers to explain your answer. Be sure to show all of your work.

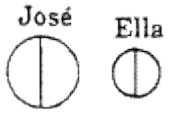
José ate ½ of a pizza.
Ella ate ½ of another pizza.
José said that he ate more pizza than Ella, but Ella said they both ate the same amount. Use words and pictures to show that José could be right.

Solution and Rubric:

This would be true when José's pizza is larger than Ella's pizza. Half of a larger unit is more than half of a smaller unit.

Extended
Student fully explains and mentions relative size of the pies. (Must say Josés' is larger.)

Satisfactory
Gives a picture where sizes are different, but gives no explanation.

(Can have 

with no comparison.)

Partial
Statement such as "José's pizza had bigger pieces."

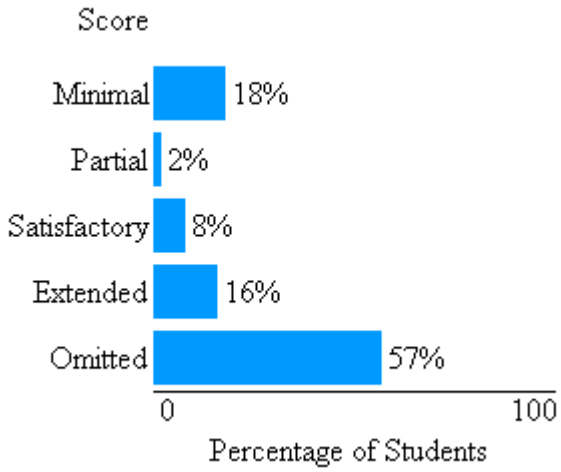
Minimal
Student answers ½ is always equal to ½.
OR
refers to the relative number of pieces of pizza, or toppings

Incorrect/Off Task
The work is completely incorrect, irrelevant, or off task.
e.g., a picture without a comparison with pizzas appearing about the same size.

Results:

EP national performance results in Mathematics at grade 4: 1992[1]

Reason (Meaning of Fraction)



NOTE: These results are for public and nonpublic school students. Percentages may not add to 100 due to rounding.

1 Accommodations not permitted.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 Mathematics Assessment.

http://nces.ed.gov/nationsreportcard/itmrlsx/search.aspx?subject=mathematics

Click Reason (Meaning of Fraction)